

Listing of the Claims:

1. (Currently amended) A method of operating an electronic device, comprising:
 - receiving a noise signal;
 - generating a sound metric for the noise signal by performing a Fourier transform on the noise signal to obtain a frequency domain representation of the noise signal, wherein the sound metric is a loudness profile; and
 - generating an alert signal having a spectral composition based on the sound metric.
2. (Canceled)
3. (Canceled)
4. (Currently amended) The method of Claim 3 1, wherein generating the sound metric further comprises:
 - calculating a distribution of sones/bark versus bark for the frequency domain representation of the noise signal using an ISO 532B loudness calculation method; and
 - determining an overall loudness for the noise signal and a loudness in at least one critical band for the noise signal based on the distribution of sones/bark versus bark, the loudness profile comprising the overall loudness of the noise signal and the loudness in at least one critical band.
5. (Original) The method of Claim 4, wherein generating the alert signal comprises:
 - determining a power value for the alert signal based on the loudness profile for the noise signal;
 - determining a transfer function for an alert signal transmit filter based on the loudness profile for the noise signal; and
 - transmitting the alert signal at the power value using the alert signal transmit filter.

6. (Original) The method of Claim 5, wherein determining the transfer function for the alert signal transmit filter comprises:
selecting coefficients for the alert signal transmit filter.

7. (Original) The method of Claim 1, wherein the sound metric comprises a loudness profile and/or a sharpness profile.

8. (Original) The method of Claim 1, further comprising:
receiving an incoming communication and/or scheduled event at the electronic device; and
wherein receiving the noise signal comprises receiving the noise signal responsive to receiving the incoming communication.

9. (Original) The method of Claim 1, further comprising:
receiving an incoming communication at the electronic device after receiving the noise signal and generating the sound metric for the noise signal; and
wherein generating the alert signal comprises generating the alert signal having the spectral composition that is based on the sound metric responsive to receiving the incoming communication.

10. (Original) The method of Claim 1, wherein the electronic device is a mobile terminal.

11. (Currently amended) A method of operating an electronic device, comprising:
providing a plurality of alert profiles, each of the alert profiles being generated to have a spectral composition based on a noise signal sound metric associated with an ambient noise environment;

receiving a user selection of one of the plurality of alert profiles; and
generating an alert signal that is based on the selected one of the plurality of alert profiles.

12. (Original) The method of Claim 11, wherein generating the alert signal comprises generating the alert signal having a spectral composition that is based on the selected one of the plurality of alert profiles.

13. (Original) The method of Claim 11, wherein generating the alert signal comprises:

determining a power value for the alert signal based on the selected one of the plurality of alert profiles for the noise signal;

determining a transfer function for an alert signal transmit filter the selected one of the plurality of alert profiles for the noise signal; and

transmitting the alert signal at the power value using the alert signal transmit filter.

14. (Currently amended) A method of operating an electronic device, comprising:

providing a plurality of alert profiles, at least one of the plurality of alert profiles having a different spectral composition than other ones of the plurality of alert profiles;

then

receiving a noise signal;

selecting one of the plurality of alert profiles responsive to receiving the noise signal; and

generating an alert signal that is based on the selected one of the plurality of alert profiles.

15. (Original) The method of Claim 14, wherein generating the alert signal comprises generating the alert signal having a spectral composition that is based on the selected one of the plurality of alert profiles.

16. (Original) The method of Claim 14, wherein generating the alert signal comprises:

determining a power value for the alert signal based on the selected one of the plurality of alert profiles for the noise signal;

determining a transfer function for an alert signal transmit filter the selected one of the plurality of alert profiles for the noise signal; and

transmitting the alert signal at the power value using the alert signal transmit filter.

17. (Currently amended) An electronic device, comprising:

a receiver that is configured to receive a noise signal;

a Fourier transform module that is configured to obtain a frequency domain representation of the noise signal;

a sound metric processor that is configured to generate a sound metric for the noise signal based on the frequency domain representation of the noise signal, wherein the sound metric is a loudness profile.; and

an alert generator that is configured to generate an alert signal having a spectral composition that is based on the sound metric.

18. (Canceled)

19. (Canceled)

20. (Currently amended) The electronic device of Claim ~~19~~ 17, wherein the sound metric processor is further configured to calculate a distribution of sones/bark versus bark for the frequency domain representation of the noise signal using an ISO 532B

loudness calculation method and to determine an overall loudness for the noise signal and a loudness in at least one critical band for the noise signal based on the distribution of sones/bark versus bark, the loudness profile comprising the overall loudness of the noise signal and the loudness in at least one critical band.

21. (Original) The electronic device of Claim 20 wherein the alert generator further comprises an alert signal transmit filter and wherein the alert generator is further configured to determine a power value for the alert signal based on the loudness profile for the noise signal, determine a transfer function for the alert signal transmit filter based on the loudness profile for the noise signal, and transmit the alert signal at the power value using the alert signal transmit filter.

22. (Original) The electronic device of Claim 21, wherein the alert generator is further configured to select coefficients for the alert signal transmit filter.

23. (Original) The electronic device of Claim 17, wherein the sound metric comprises a loudness profile and a sharpness profile.

24. (Original) The electronic device of Claim 17, wherein the electronic device is a mobile terminal.

25. (Currently Amended) An electronic device, comprising:
means for receiving a noise signal;
means for generating a sound metric for the noise signal by performing a Fourier transform on the noise signal to obtain a frequency domain representation of the noise signal, wherein the sound metric is a loudness profile; and
means for generating an alert signal having a spectral composition based on the sound metric.

26. (Canceled)

27. (Canceled)

28. (Currently amended) The electronic device of Claim ~~27~~ 25, wherein the means for generating the sound metric further comprises:

means for calculating a distribution of sones/bark versus bark for the frequency domain representation of the noise signal using an ISO 532B loudness calculation method; and

means for determining an overall loudness for the noise signal and a loudness in at least one critical band for the noise signal based on the distribution of sones/bark versus bark, the loudness profile comprising the overall loudness of the noise signal and the loudness in at least one critical band.

29. (Original) The electronic device of Claim 28, wherein the means for generating the alert signal comprises:

means for determining a power value for the alert signal based on the loudness profile for the noise signal;

means for determining a transfer function for an alert signal transmit filter based on the loudness profile for the noise signal; and

means for transmitting the alert signal at the power value using the alert signal transmit filter.

30. (Currently amended) An electronic device, comprising:

means for providing a plurality of alert profiles, each of the alert profiles being generated to have a spectral composition based on a noise signal sound metric associated with an ambient noise environment;

means for receiving a user selection of one of the plurality of alert profiles; and

means for generating an alert signal that is based on the selected one of the plurality of alert profiles.

31. (Currently amended) An electronic device, comprising:

means for providing a plurality of previously generated alert profiles, at least one of the plurality of alert profiles having a different spectral composition than other ones of the plurality of alert profiles;

means for receiving a noise signal;

means for selecting one of the plurality of alert profiles responsive to receiving the noise signal; and

means for generating an alert signal that is based on the selected one of the plurality of alert profiles.

32. (Currently amended) A computer program product for operating an electronic device, comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to receive a noise signal;

computer readable program code configured to generate a sound metric for the noise signal by performing a Fourier transform on the noise signal to obtain a frequency domain representation of the noise signal, wherein the sound metric is a loudness profile;

and

computer readable program code configured to generate an alert signal having a spectral composition based on the sound metric.

33. (Canceled)

34. (Canceled)

35. (Currently amended) The computer program product of Claim 34 32, wherein the computer readable program code configured to generate the sound metric further comprises:

computer readable program code configured to calculate a distribution of sones/bark versus bark for the frequency domain representation of the noise signal using an ISO 532B loudness calculation method; and

computer readable program code configured to determine an overall loudness for the noise signal and a loudness in at least one critical band for the noise signal based on the distribution of sones/bark versus bark, the loudness profile comprising the overall loudness of the noise signal and the loudness in at least one critical band.

36. (Original) The computer program product of Claim 35, wherein the computer readable program code configured to generate the alert signal comprises:

computer readable program code configured to determine a power value for the alert signal based on the loudness profile for the noise signal;

computer readable program code configured to determine a transfer function for an alert signal transmit filter based on the loudness profile for the noise signal; and

computer readable program code configured to transmit the alert signal at the power value using the alert signal transmit filter.

37. (Currently amended) A computer program product for operating an electronic device, comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to provide a plurality of alert profiles, each of the alert profiles being generated to have a spectral composition based on a noise signal sound metric associated with an ambient noise environment;

computer readable program code configured to receive a user selection of one of the plurality of alert profiles; and

computer readable program code configured to generate an alert signal that is based on the selected one of the plurality of alert profiles.

38. (Currently amended) A computer program product for operating an electronic device, comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to provide a plurality of previously generated alert profiles, at least one of the plurality of alert profiles having a different spectral composition than other ones of the plurality of alert profiles;

computer readable program code configured to receive a noise signal;

computer readable program code configured to select one of the plurality of alert profiles responsive to receiving the noise signal; and

computer readable program code configured to generate an alert signal that is based on the selected one of the plurality of alert profiles.